THE TECH

VOL. XXVIII. No. 59 BOSTON, MASS., MONDAY, MARCH 22, 1909 PRICE THREE CENTS

ADDITIONS FOR MECHANICAL LABS

Expensive Sets of Drills Presented by Various Companies

COURSE II EXCURSIONS

Mechanicals to Visit Several Manufacturing Plants in Neighborhoods

Through the kindness of Geo. H. Sampson and Son, representatives of the Ingersoll Rand Company, the Institute has recently secured a Temple Air Drill to be used for illustrative purposes in the Mining Laboratory. This drill represents a new departure in the line of rock drills. For years the standard rock drill when used underground has been a compressed air machine, acknowledged by all to be very wasteful in the use of power. This has held its place through its simplicity and through its ability to stand up and do its work under all the unfavorable conditions that exist underground. Efforts to introduce electric drills which would make use of direct current electricity and therefore be more efficient in the use of power, have not met with success. The Temple drill seems to have solved the problem of the use of the efficient electricity with the simple and powerful air. Mounted upon a little truck is an electric motor which drives two single acting air pistons. Each of these pistons moves in a cylinder, which is connected through two short lengths of air hose to the two ends of the drill cylinder. Air in the hose is automatically kept at a pressure of 30 pounds per square inch above the atmosphere. Since the air pistons are 180 degrees apart it follows that a vibratory reciprocating motion is transmitted from the two cylinders to the two ends of the drill cylinder, thereby causing the drill piston to vibrate back and forth.

The drill has been the subject of experiments by the Ingersoll Rand people for several years, and has been thoroughly tested out under actual working conditions, and it is only after these tests that they have been put upon the market. Owing to the fact that the hose cannot be of very long length, it follows that this drill is not adapted to all conditions, but for tunnel and level work it certainly appears to have a big field.

The Institute has recently secured from the Sullivan Machine Company, through the kindness of Mr. Copeland, President, and Mr. Fry, Secretary, both old Tech men, the following apparatus:

One diamond drill outfit mounted for hand running; one Sullivan plug drill complete; one Sullivan air hammer drill complete, mounted upon tripod. These air hammer drills and plug drills represent a modern advance in drilling. They represent the application of the pneumatic hammer principle to drill work. They are not aimed to supplant the standard rock drill in its work of tunnel driving and shaft sinking in hard rock, but they are designed for lighter work, for example, in drilling shallow holes in boulders, and in doing regular work in soft rock.

On Tuesday and Friday of this week the M. E. Society has arranged for excursions to the works of the General Electric Company at Lynn. The parties will leave the Revere Beach and Lynn Wharf on Atlantic Avenue on the 1.45 boat both days. Electricals who were unable to make the trip with their own society will be welcome.

On Saturday afternoon, April 3, the Society has arranged for a trip to the Hood Rubber Company Works in Watertown. It is very difficult to arrange to visit a rubber factory, and this is the first such trip in many years. Owing to the large number who have signified their intention of going, the excursion will be limited to members of the M. E. Society.

MAJOR F. H. BRIGGS TO PRESENT CUP

Trophy to be Awarded Best All-Round Track Athlete at Institute

KANALY ALSO SPEAKS

Fernstrom Presents Banner Won Last Fall From Harvard in Cross Country

At the cross-country dinner last Saturday night in the Union, Dr. J. A. Rockwell 1896, made the announcement that a fourth cup was to be given for competition this spring. Major Frank A. Briggs 1881, is the donor of this cup, and it is to be given to the best all-round athlete at the Institute. This cup, like the other three, is to be renewed each year by the donor, so that the cup will become the permanent possession each year of the winner.

Dr. Rockwell in his interesting manner, gave a few hints on what he thought was the proper way for men to train. He said that all those who thought about running at all should do long distance running, for only in this way will their legs and muscles become sufficiently strong so that they will be enabled to do good work on the track. He said that this was not only true of milers, but also of half-milers and sprinters.

Ex-Capt. Ellis 1909, who led the team to victory last year, spoke of the freshman-sophomore race, and of the encouraging way in which the men were showing up for practice. Coach Kanaly spoke in detail of his methods of training and what he thought each man should do. He told about his many plans for spring work, and requested that all men, whether they made the team or not, would report for practice regularly at the Field, as he would be able to use them in developing the 'varsity men.

A. R. Hunter 1908, spoke of methods for getting men out for the Hare and Hounds, and in this way of getting more men interested in cross-country work. K. D. Fernstrom 1910, the manager of the team, spoke about the new plan of the season tickets. In closing, he presented the banner won by the Technology cross-country team against Harvard last fall.

BENSON 1912 WINS RUN

Thirty-Seven Men Enjoy Hare and Hound Run at Waban

Thirty-seven enjoyed the six-mile run over the Waban course last Saturday. In order that everyone would get the best advantage from this run, Coach Kanaly divided the large squad into two sections—the fast and the slow. In the fast section were the men who have the best chance of making the class teams, and the upper class men who are already preparing for next fall's work. The slow squad was composed of those men who were out for the fun of the thing.

The hares, W. C. West 1911, G. C. George 1911, and G. H. Magee 1910, laid a short but hard trail through swamps, bushes and one brook in which the fellows had to take an unexpected swim. At the end of the trail E. W. DeWitt 1911, had the enjoyment of finding the bags. The sprint for home, about a half mile, was won by H. S. Benson, captain of the freshman team. P. D. White 1911, the crack half-miler, was second, with Watkins 1912, pushing him hard. The next twelve men to finish were as follows: H. H. Howland 1909, K. Cartwright 1912, E. Jacobs 1910, E. W. DeWitt 1911, C. H. Morrill 1912, B. C. Huber 1910, C. R. Johnson 1911, G. H. Rhodes 1912, Foster Russell 1911, E. M. Potter 1910, and C. L. Tuller 1912.

TENNIS OUTLOOK GOOD THIS YEAR

Captain Parker Institutes New Rating System of First Ten

THIRTY-FIVE MEN OUT

Meets With Wesleyan and Brown —Spring Tournament Entry Blanks Now Ready

Thirty-five men have signified their intention of playing tennis this spring, in answer to call from Captain T. B. Parker for candidates, and indications point to an excellent season for the Institute team. Entry blanks for the annual spring tournament are now at hand, and a long list of entries is expected. The fee for single and double entries is $0.75 and $1.50 respectively, and the play will be put under way as soon as the courts will permit. This will probably be about April 10.

A novel system of rating the men will be introduced this year. The ten men who, in the opinion of Captain Parker, are the best players will be given a rating from 1 to 10, and the list posted on the bulletin boards. Each man on the list then has the privilege of challenging the man above him for the latter's position, and any candidate can challenge the tenth man. These matches must be played off within a week of the challenge, and the corresponding changes in the rating list made each week. In this manner Captain Parker expects to have the four best men at the top of the list by the middle of the season, and these four will compose the team that will represent Technology at the intercollegiates at Longwood on May 24. Among the first five men will probably be: Captain T. B. Parker 1911, P. M. Wentworth 1909, F. W. Coville 1911, M. K. Sweet 1910, and J. Scheuer 1910, who won the fall tournament.

Two dual meets have been definitely arranged, and several others are pending. The team will play Brown this year at Providence, on May 15, and will tackle Wesleyan at home on May 22. Both of these colleges have a well established reputation on the courts, and close, interesting matches are expected.

MESSAGE TO TECH MEN

Mrs. Maclaurin Sends Letter With Personal Message for All

The Tech has received the following self-explanatory letter from Mrs. Richard C. Maclaurin, wife of the President-elect of the Institute, in which she expresses clearly her feeling towards Tech men, and conveys to each fellow a personal message. The letter is the result of an interview with Mrs. Maclaurin during her recent visit to Boston.

The letter follows:—

I should be very glad if you would give a simple message from me to the students, expressing my sincere hope that I may be of some real use to them and that they will help to make it clear to me how I can serve them best. I should highly prize the confidence of individual students, and my special sympathy is with the men who are away from home and friends.

Most sincerely yours,
ALICE MACLAURIN.

CHEMICAL SOCIETY

The next meeting of the Chemical Society will be held at the Union Wednesday evening, March 24, at 8 o'clock. The talk will be given by Dr. Karl Langenbeck on the subject "Ceramics." Professor W. H. Walker says that Dr. Langenbeck is a most interesting speaker, and his subject of glass and pottery making should give everyone something to think about.

RABBI FLEISCHER SPEAKS AT UNION

Gives Interesting Discourse on Principles of Democracy

FAVORS EQUAL RIGHTS

Declares That No Institution Can Exist Without Principles of Democracy

"No institution can possibly exist that is not founded upon the principles of democracy," was the startling statement made by Rabbi Fleischer at the Union Friday night. Born in Germany and coming to this country while young, Dr. Fleischer has made democracy a matter of a great deal of study, and it is now his pet subject for addresses.

One of the many startling statements made was that Americans themselves do not know what real democracy is. Most of them think democracy came into the world about a hundred and twenty-five years ago when the American Republic was founded, and that it is a form of politics, when in reality it is a great social ideal. Dr. Fleischer defined democracy as the organization of society founded on the basis of respect for the human individual.

He said that democracy forms a very good religion for anyone not already affiliated with any so-called religion, and that it should form the basis of the principles of every practical religious person. For a democratic creed he gave the following: Democracy depends on (1) belief in man, (2) respect for the individual human unit, (3) faith in human progress, and (4) society's recognition of the individual's right to expand to his best self-realization.

After giving his creed Rabbi Fleischer proceeded to elaborate it into a sketch of the philosophy of democracy. He said that everyone should be able to say that he believed in man, in his changeable nature, and that good society can not be built up without this faith in the changeable nature of mankind; that we, as individuals, must cut out this mass of antagonism and that until we do give up these prejudices we are not on the democratic plane. In elaborating the third principle of his creed he said that it was impossible for anyone to live with any enjoyment at all without believng unconsciously that there was progress in human nature, and that not until everyone really believes consciously and has faith in human progress will we be a step nearer the plane of democracy. In speaking of the fourth principle of his creed Dr. Fleischer said that one must not think only of himself but of others, and that only in this way will any progress be made toward the desired goal of democracy. He said that in this respect Technology approaches the ideal institution in that it helps not only to develop the individual to his own highist self-realization but also to enable the men to give out gifts to others when he graduates.

In closing he said: "There is no social organization so cherished but what will have to face democracy, prove that it is already based on some of its principles and able to stand on all of them, and only those organizations that can do this will last forever."

CALENDAR

MONDAY, MARCH 22.

1.00 P. M. 1909 Class Meeting in Huntington Hall.
4.00 P. M. Show Rehearsal.
4.00 P. M. Track Men at the Field.

TUESDAY, MARCH 23.

3.00 P. M. 1911 Baseball Practise at the Field.
4.00 P. M. Show Rehearsal.
4.00 P. M. Track Men Run at the Gym.

WEDNESDAY, MARCH 24.

4.00 P. M. Show Rehearsal.
8.00 P. M. Chemical Society Meeting at the Union.

THE TECH

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All communications regarding advertisements should be addressed to the Business Manager. Regarding subscriptions address the Circulation Manager

Monday, March 22, 1909.

The Tech takes pleasure in announcing the election of Joseph Newell Stephenson 1909, to the position of athletic editor.

The Tech wishes to thank Mrs. Maclaurin, on the part of the student body, for her kind and sympathetic message appearing in this issue, and sincerely believes that she may rest assured of a frank, open-hearted appreciation in return.

The appreciation that has been the due of the gymnasium team has not been given them by the undergraduates at the Institute. Few of the students realize the time and effort that this team has put in to establish the position of Technology in this activity. It seems that the men on the gymnasium team who have worked hard all winter should be recognized by the athletic association, and awarded an insignia. Such an action on the part of the Institute would be a great incentive for men to try for the team in later years, especially since all first year men will in the future be obliged to take some form of physical exercise. A good team has been developed this year, and this department of athletics should be encouraged.

It has been proposed to change the time of the weekly Y. M. C. A. meetings to Friday evening, holding then a bean supper, followed by a short smoke talk on some timely subject. The meetings would be held early enough to avoid conflict with the regular Union night entertainments, and would probably be much more convenient to the men desiring to attend than the present arrangement.

Some such move would seem practically necessary if the meetings are to continue, as they have fallen off more and more, until now they are of little use to the student body at large. Whether or not a little more advertising and discussion during the week might help out is doubtful. Few men care to eat their Sunday supper at the Union, and not many want to come from a distance for the meeting alone. The change suggested looks helpful, and as the Association should try to work most effectively, the new plan deserves careful consideration.

Those who are about to graduate from the Institute will find in the various local alumni associations an unusually cordial welcome and a spirit of helpfulness which will prove of immense benefit.

The important alumni happenings of the year, the new plan of the alumni council, and the election of President Maclaurin have stirred up these various organizations throughout the country to a high pitch of enthusiasm. At the beginning of the year there were twenty-five associations, and two have been born since, at Detroit and Milwaukee. Recently Dr. Maclaurin visited the societies at Washington, Pittsburg, Chicago, and Detroit. He received a most cordial welcome, and had an excellent chance to get in touch with the western Technology spirit, especially in Chicago, where the enthusiasm was tremendous.

On the Coast the Technology clubs have flourished in a remarkable way, and the interest there seems to run even higher than elsewhere. There are now five alumni associations on the Pacific Coast, where three years ago there were none.

1909 CLASS MEETING

Class Day and Marshals Will be Discussed by Seniors

Today at one o'clock in Huntington Hall the class of 1909 will hold an important meeting to decide on class day. The question has arisen as to whether the first three men on the class day ballot will be the class marshals or whether the class will vote again on the twenty-five chosen for the class day committee. The class will also be asked to vote to stand by the Institute Committee in all its actions.

MEETING OF CIVILS

The next meeting of the Civil Engineering Society will be held in 11B Wednesday afternoon at 4.15. The speaker for the occasion is to be Leonard Metcalf 1892, of the firm of Metcalf & Eddy, contractors. The subject of Mr. Metcalf's talk is to be "The Relative Economy of Contract Work as Compared with Day Labor." Since graduating from the Institute Mr. Metcalf has been most active in his line, and was recently an expert for the investigation of the Water, Sewer and Street Commission of the city of Boston by the Finance Commission.

NAVAL ARCHITECTURE

The Department of Naval Architecture has recently purchased a new computing machine for multiplying and dividing. It gives results to thirteen significant figures and is of especial value in consecutive multiplication or divisions.

In connection with the work in Marine Engineering, an excursion of inspection was recently undertaken to the S. S. Winter of the Metropolitan line and S. S. Iberian of the Leyland line. Engine-rooms, boiler-rooms, draft-tunnels and all parts of the marine engineering equipment were inspected.

A trip through the General Electric Works at Lynn was recently made by the students of the turbine option of the Mechanical Engineering course, to view the mechanical details and methods of construction of the Curtis' turbine.

Prof. Arlo Bates of the English department of the Institute, is to deliver a lecture before the Phi Society of Bowdoin College at Bowdoin, this evening. Bowdoin is Prof. Bates' alma mater, he having graduated from there with the class of 1875.

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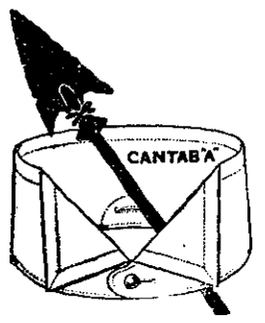

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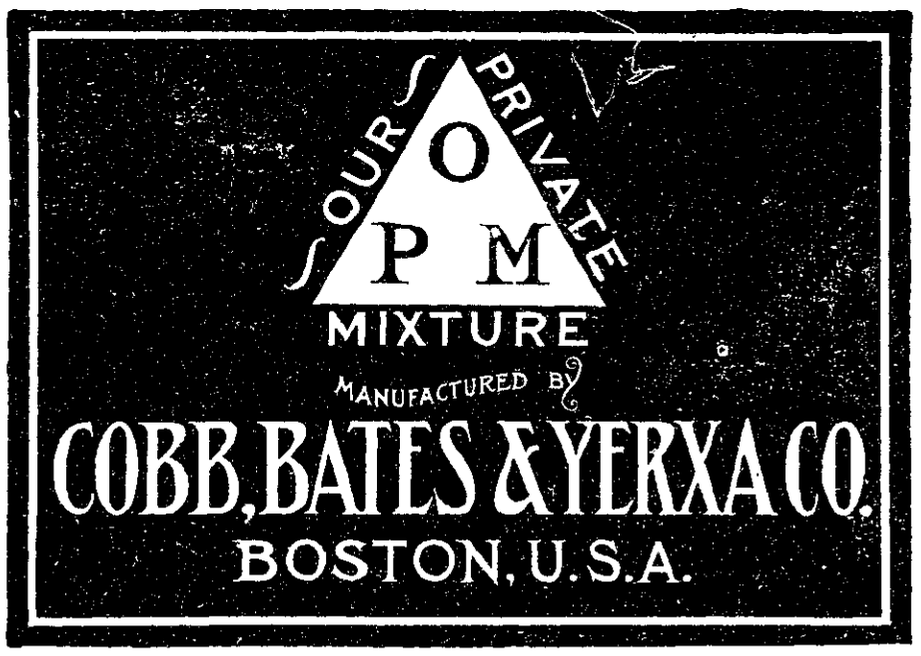

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OUTDOOR WORK BEGINS

Many Take Advantage of the Fine Weather to Get to Field

Although the attendance at the Field this week has been fair, there is plenty of opportunity for more men. According to Coach Kanaly, the track is in better condition than ever before, and the weather ideal for so early in the season. Some men have complained in the past about the track, but they can have no kick now.

The hopes for first place in the Intercollegiates are very good, as with the exception of the broad jump, likely candidates are showing up for the field events.

In the sprints the most promising men are Lockett, Reed, Grant, Walker, Fox, Murray, Mangan, Oettinger, Robinson, and Whipple. It is not definitely known as yet whether Seligman will run this spring, and if this crack sprinter decides to withdraw from active work this year, his loss will be severely felt. The quarter is well taken care of. How well is shown by the fine showing made by the quartette of 440-yard men who composed the varsity relay team. P. D. White, the crack half-miler of the sophomore class, is the only man of first class ability in the 880, and there is a fine chance for men in this event. It will be hard to fill the place of L. O. Mills in the mile, but the cross-country team should furnish some good men. So far MacCreadie, Eldred, Howland, Campbell and C. S. Robinson have been out.

New men are coming out for the weight events in fine shape, and the following ten have been doing faithful work: Burbon, Duyser, Mayers, Stuart, Metcalf, Nisbet, Parker, Wentworth, Gott, Richards, Chamberlin and Bray. The high jump will be taken care of by Stuart, Ray Allen and Dalrymple. In the pole vault, W. D. Allen 1911, the present record holder, is the main candidate.

POSTERS SELL WELL

Applications for Seats Are to be Sent Out in a Week or Two

That the Show posters proved to be popular was shown by the unprecedented sale of them on Friday and Saturday. Although the posters have been on sale for but two days, over half of the first supply of 500 have been disposed of. The size and flexibility of this year's poster makes it easy to send through the mail in the mailing tubes which are for sale with the posters.

Applications for seats for the Boston performances will be mailed to every member of the Institute within two weeks. Several important changes have been made in this year's application blanks, and they should be carefully read before being sent in, as errors cannot be rectified.

Coach Francis is working hard trying to whip the chorus and principals into shape. The chorus members have rehearsed practically all the songs and dances of both acts, and are now busy with minor details of the stage business. The dancing sextette is practising several Spanish dances which give promise of being mighty effective.

NEW BOOK BY MR. SMITH

An important step forward in teaching machine work is soon to appear in the books which will be published by R. H. Smith, instructor of Machine Tool Work. These books will cover both the elementary and advanced work. Each book will be fully illustrated by means of original perspective and mechanical drawings of machines, mechanisms, tools, and operations. The subject matter is written in condensed form. Although primarily for student use in the laboratory and shop, they will also appeal to both student and instructor, as they greatly facilitate the teaching of this subject.

The engagement has been announced of Mr. Benjamin Hurd 1896, the donor of the Hurd Cup for the 120-yards hurdles, to Miss Laura N. T. Toppan of Highland street, Cambridge.

Prof. William T. Sedgwick, of the biological department, will give a series of lectures at the University of Illinois from April 19 to 24, on the general subject, "Science in the Service of Public Health."

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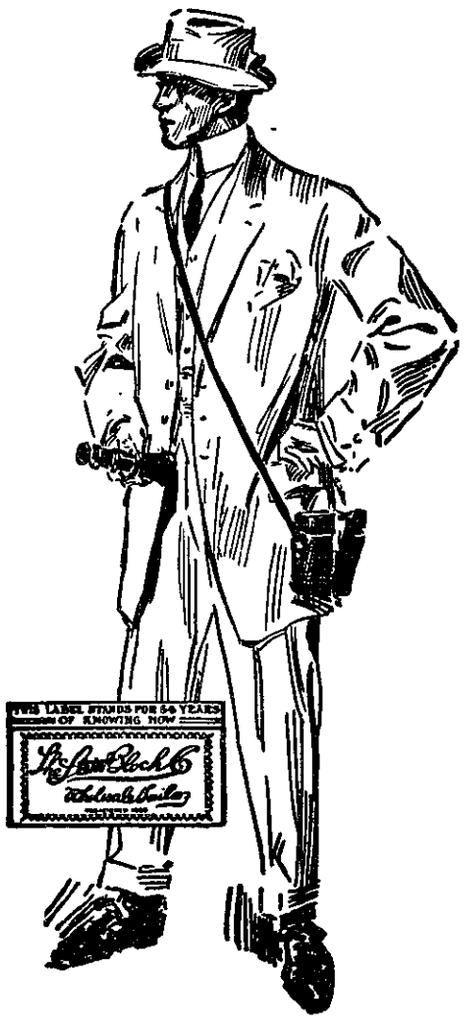

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The Technology Review

A QUARTERLY MAGAZINE DEVOTED TO THE INTERESTS OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY AND PUBLISHED BY THE ALUMNI ASSOCIATION

83 NEWBURY STREET, BOSTON

The Review aims to develop closer relations among Institute men and to stimulate their interest in the work of the College. It is in no sense an engineering magazine, but deals broadly with the problems of Technological Education and the responsibilities of the professional man.

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TO TEACH THIS SUMMER

Mrs. Richards to Give Household Course in California

Mrs. Ellen H. Richards, instructor in the department of chemistry and chemical engineering at the Institute, has accepted a call from the University of California to come to that institution and give courses on household economics during the summer school session of 1909. Mrs. Richards will take up her duties there about the middle of June.

Women's clubs and federations throughout California have sent written requests to the university for the establishment of courses of instruction in domestic and household economics during the summer session, as there is a great need for such work on the Pacific coast. Mrs. Richards will cover as nearly as possible the hints made in these petitions in the arrangement of her work.

NOTICES

N. H. S. CLUB.—A meeting of the Newton High School Club will be held in 21 Rogers on Wednesday, March 24, at one o'clock, to elect officers and arrange for dinner.

BASEBALL.—First practise for the Sophomore baseball team will be held at the Field tomorrow afternoon. L. G. Odell, Capt.

HARE AND HOUNDS.—A run over the Tech course will be run tomorrow. Everyone who is to run in the 1911-1912 race must run Tuesday. Train leaves Back Bay at 4.09 P. M. Tickets 20 cents.

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